

Fauna of Anthozoans from Adjacent Waters of Geoje Island in Korea

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ABSTRACT

The faunal survey on anthozoans of Geoje Island was conducted from 17 localities of the adjacent waters of Geoje Island during the period from February 1995 to January 1998. As a result, 39 species, 25 genera, 21 families, 7 orders, 3 subclasses in class Anthozoa were identified. Two of them, *Calliactis japonica* and *Nemanthus nitidus* are new to the Korean fauna.

Key words: Fauna, anthozoans, Geoje Island, Korea

INTRODUCTION

The faunal survey on benthos of Geoje Island was conducted for the commemoration of honourable retirement of Dr. Boon-Jo Rho. Geoje Island, the second largest in Korea, is located in the Korea Strait influenced by the Tsushima warm current, the branch of Kuroshio. Eighteen species of the anthozoans of Geoje Island were known 18 species from the previous faunal studies (Rho and Song, 1976; Rho *et al.*, 1980; Song, 1976, 1981, 1982, 1984, 1987, 1991, 1992a, 1992b, 1995, 1998). In this paper, we are able to report 39 species, two of which, *Calliactis japonica* and *Nemanthus nitidus* are newly recorded from Korea.

MATERIALS AND METHODS

The specimens were collected from 17 localities of Geoje Island and its adjacent waters during the period from February 1995 to January 1998, and previous records of the area on anthozoans are also included in this study (Fig. 1). They were sampled from the intertidal zone by hand-picking and from the subtidal zone by SCUBA diving and fishing nets.

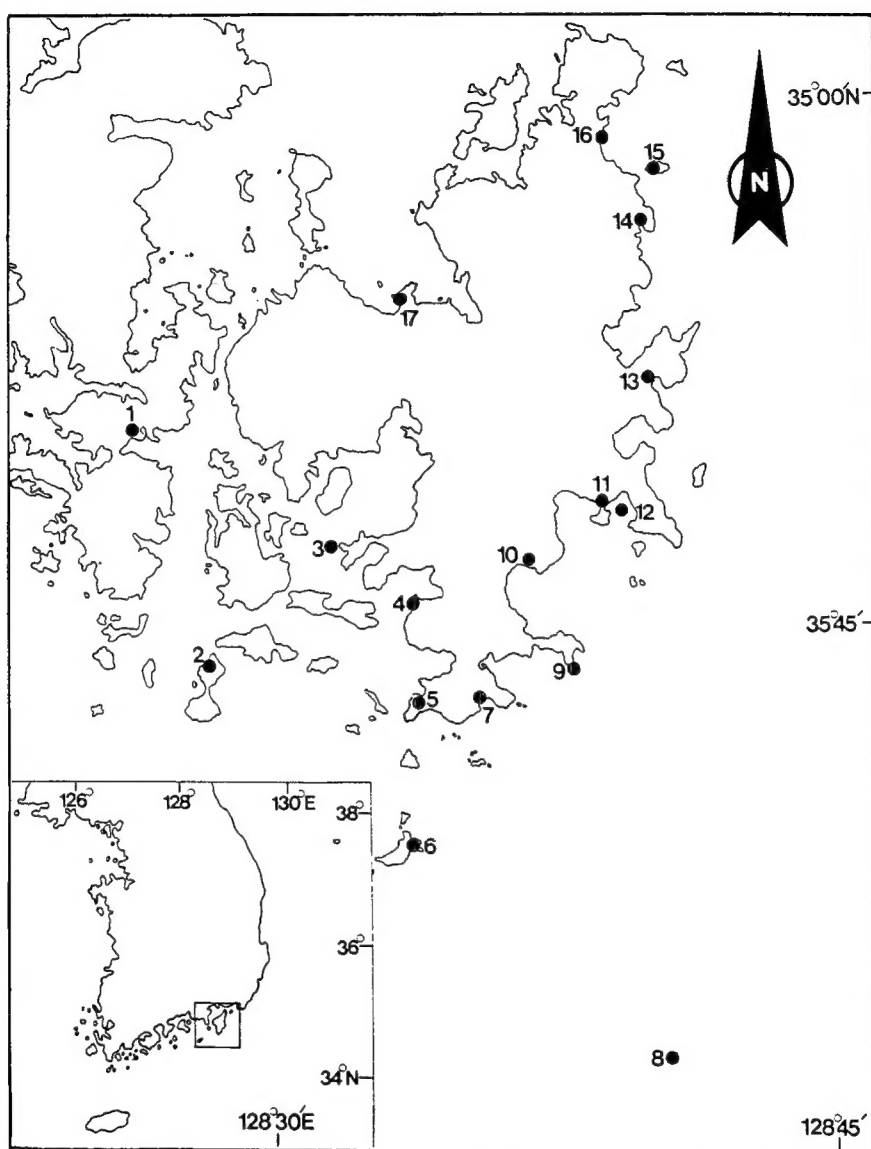


Fig. 1. The sampling sites of adjacent waters of Geojedo Island on anthozoans. 1, Chungmu (충무); 2, Bijindo Island (비진도); 3, Gudo Island (구도); 4, Ssanggeun (쌍근); 5, Daepo (대포); 6, Maemuldo Island (매물도); 7, Yeocho (여차); 8, Hongdo Island (홍도); 9, Haegeumgang (해금강); 10, Susan (수산); 11, Gujora (구조라); 12, Yundoldo Island (윤돌도); 13, Jangseungpo (장승포); 14, Oepo (외포); 15, Isudo Island (이수도); 16, Heungnam (흥남); 17, Sagok (사곡).

The sea anemones and other corals were preserved in each fixatives, 5% formalin and 70-80% alcohol after narcotization in menthol for the identification. Anatomical studies were conducted by routine histological procedures with the paraffin embedded tissue slices. The cnidae were examined by squashing bits of tissue on a drop of phenol-glycerine solution and measured with an ocular micrometer at $\times 1000$ magnification of a light microscope.

Thirty nine species from the adjacent waters of Geojedo Island are listed in this paper, and two

unrecorded species among them are described in detail with illustrations and data based on the specimens from the Korean waters including Geojedo Island. The specimens are deposited in the Department of Biological Science and the Natural History Museum, Ewha Womans University.

SYSTEMATIC ACCOUNT

Phylum Cnidaria Hatschek, 1888 자포동물 門

Class Anthozoa Ehrenberg, 1834 산호충 綱

Subclass 1. Octocorallia Hackel, 1866 팔방산호 亞綱

Order 1. Stolonifera Hickson, 1883 근생 目

Family 1. Clavulariidae Hickson, 1894 곤봉산호 科

Genus 1. *Clavularia* de Blainville, 1830 곤봉산호 屬

1. *Clavularia racemosa* Utinomi, 1950 송이곤봉산호

Previous records. Yundoldo (Song, 1995).

Material examined. Daepo, 8 July 1996, many individuals (inds.).

2. *Clavularia mikado* Utinomi, 1955 미카도곤봉산호

Previous records. Hongdo (Song, 1995).

Order 2. Telestacea Hickson, 1930 소지 目

Family 2. Pseudocladochonidae Madson, 1944 의소지산호 科

Genus 2. *Pseudocladochonus* Versluys, 1907 의소지산호 屬

3. *Pseudocladochonus hicksoni* Versluys, 1907 의소지산호

Previous records. Chungmu, Hongdo (Song, 1992a)

Material examined. Daepo, 9 July 1996, many inds.

Order 3. Gorgonacea Lamouroux, 1816 해양 目

Suborder Holaxonia Studer, 1887 전축 亞目

Family 3. Acanthogorgiidae Gray, 1859 가시산호 科

Genus 3. *Acalycigorgia* Kükenthal, 1908 민가시산호 屬

4. *Acalycigorgia inermis* (Hedlund, 1890) 민가시산호

Material examined. Bijindo, 9 July 1996, 2 inds. with gonads.

Family 4. Plexauridae Gray, 1859 총산호 科

Genus 4. *Euplexaura* Verrill, 1896 진총산호 屬

5. *Euplexaura abietina* Kükenthal, 1908 불나무진총산호

Material examined. Bijindo, 9 July 1996, 1 ind.

6. *Euplexaura recta* (Nutting, 1910) 곧은진총산호

Material examined. Daepo, 9 July 1996, 1 ind.

Family 5. Primnoidae Gray, 1857 폴립산호 科

Subfamily Primnoinae Gray, 1857 폴립산호 亞科

Genus 5. *Plumarella* Gray, 1870 깃산호 屬

7. *Plumarella spinosa* Kinoshita, 1907 깃산호

Material examined. Maemuldo, 8 July 1996, 2 inds.; Bijindo, 9 July 1996, 2 inds.

8. *Plumarella rigida* Kükenthal and Gorzawsky, 1908 곧은깃산호

Previous records. Haegeumgang (Song, 1981).

Material examined. Maemuldo, 8 July 1996, 2 inds.; Bijindo, July 9, 1996, 1 ind.

9. *Plumarella adhaerans* Nutting, 1912 착생깃산호

Materials examined. Maemuldo, 8 July 1996, 6 inds.

Suborder Scleraxonia Studer, 1887 골축 亞目

Family 6. Melithaeidae, 1870 빨산호 科

Genus 6. *Melithaea* M. Edwards and Haime, 1857 빨산호 屬

10. *Melithaea flabellifera* Kükenthal, 1908 부채빨산호

Previous records. Bijindo (Rho *et al.*, 1980).

Material examined. Ssanggeun, 8 July 1996, many inds.; Bijindo, 9 July 1996, 1 ind.

11. *Melithaea flabellifera cylindrata* Kükenthal, 1908 원통빨산호

Previous records. Haegeumgang (Rho *et al.*, 1980).

Material examined. Daepo, 9 July 1996, 1 ind.

12. *Melithaea densa* Kükenthal, 1908 뾰뾰산호

Material examined. Yeocha, 9 July 1996, 7 inds.

Genus 7. *Acabaria* Gray, 1859 바늘산호 屬

13. *Acabaria tenuis* Kükenthal, 1908 가는바늘산호

Material examined. Daepo, 9 July 1996, 3 inds.

14. *Acabaria undulata* Kükenthal, 1908 물결바늘산호

Previous records. Haegeumgang (Rho *et al.*, 1980).

15. *Acabaria formosa* Nutting, 1911 포모사바늘산호

Material examined. Maemuldo, 8 July 1996, 1 ind.

Order 4. Alcyonacea Lamouroux, 1816해계두 目

Family 7. Alcyoniidae Lamouroux, 1812 바다맨드라미 科

Genus 8. *Bellonella* 바다딸기 屬

16. *Bellonella rubra* Brundin, 1896 바다딸기

Material examined. Bijindo, 9 July 1996, 2 inds. with gonads.

17. *Bellonella rigida* Putter, 1900 곤봉바다딸기

Previous records. Jangseungpo (Song, 1976).

Material examined. Daepo, 9 July 1996, 2 inds.

Family 8. Nephtheidae Gray, 1862 곤봉바다맨드라미 科

Genus 9. *Eunephthya* Verrill, 1869 해면맨드라미 屬

18. *Paraspongodes spiculosa* (Kükenthal, 1906) 침해면맨드라미

Materials examined. Hongdo, 9 July 1996, 1 ind.; Bijindo, 9 July 1996, 2 inds.

19. *Paraspongodes hirotai* (Utinomi, 1951) 빨강해면맨드라미**Material examined.** Bijindo, 9 July 1996, 8 inds.

Order 5. Pennatulacea Verrill, 1865 해새 목

Suborder Sessiliflorae Kükenthal, 1915 정좌 과

Family 9. Echinoptilidae Hubrecht, 1885 가시선인장 과

Genus 10. *Echinoptilum* Hubrecht, 1885 가시선인장 속**20. *Echinoptilum macintoshi* Hubrecht, 1885 가시선인장****Previous records.** Chungmu (Rho and Song, 1976).

Family 10. Veretillidae Herklots, 1808 바다선인장 과

Genus 11. *Cavernularia* M. Edwards and Haime, 1850 바다선인장 속**21. *Cavernularia obesa* M. Edwards and Haime, 1857 바다선인장****Material examined.** Heungnam, 30 Jan. 1997, 1 ind.; Heungnam, 3 July 1997, 3 inds.

Suborder Subselliflorae Kükenthal, 1915 반좌 과

Family 11. Virgulariidae Verrill, 1868 버들조름 과

Subfamily Virgulariinae Verrill, 1868 버들조름 과

Genus 12. *Virgularia* Lamarck, 1816 버들조름 속**22. *Virgularia halisceptrum* (Broch) 바다버들조름****Previous records.** Bijindo (Rho and Song, 1976)**Material examined.** Hongdo, 9 July 1996, 1 ind.; Bijindo, 9 July 1996, 4 inds.**23. *Virgularia juncea* (Pallas, 1766) 골풀버들조름****Material examined.** Sagog, 14 Jan. 1998, 1 ind.

Subclass 2. Zoantharia de Blainville, 1830 말미잘 과

Order 6. Actiniaria R. Hertwig, 1882 해변말미잘 목

Tribe Thenaria Carlgren, 1899 족반 과

Subtribe Endomyaria Stephenson, 1921 내근 과

Family 12. Actiniidae (Gosse, 1858) 해변말미잘 과

Genus 13. *Anthopleura* Duchassaing and Michelotti, 1860 꽃해변말미잘 속**24. *Anthopleura japonica* Verrill, 1889 갈색꽃해변말미잘****Previous records.** Jangseungpo and Haegeumgang (Song, 1992b).**Material examined.** Gudo, 6 Feb. 1996, many inds.; Isudo, 7 Feb. 1996, many inds.; Oepo, 7 July 1989, many inds.; Gujora, 4 July 1997, many inds.**25. *Anthopleura kurogane* Uchida and Muramatsu, 1958 검정꽃해변말미잘****Previous records.** Bijindo (Song, 1984; 1992).**Material examined.** Isudo, 25 July 1995, many inds.; Gudo, 6 Feb. 1996, many inds.; Isudo, 7 Feb. 1996, many inds.; Oepo, 7 July 1996, many inds.; Heungnam, 30 Jan. 1997, many inds.; Heungnam, 3 July 1997, many inds.; Gujora, 4 July 1997, many inds.**26. *Anthopleura midori* Uchida and Muramatsu, 1958 풀색꽃해변말미잘****Previous records.** Jangseungpo and Haegeumgang (Song, 1992b).

Material examined. Isudo, 25 July 1995, many inds.; Gudo, 6 Feb. 1996, many inds.; Isudo, 7 Feb. 1996, many inds.; Heungnam, 3 July 1997, many inds.; Gujora, 4 July 1997, many inds.

27. *Anthopleura pacifica* Uchida, 1938 태평양꽃해변말미잘

Previous records. Yundoldo (Song, 1992b).

Material examined. Isudo, 12 Feb. 1995, many inds.; Isudo, 25 July 1995, many inds.; Gujora, 4 July 1997, many inds.

Genus 14. *Paracondylactis* Carlgren, 1934 측해변말미잘 屬

28. *Paracondylactis hertwigi* (Wassilieff, 1908) 측해변말미잘

Material examined. Heungnam, 30 Jan. 1997, 4 inds.; Heungnam, 3 July 1997, many inds.

Subtribe Acontiarina Carlgren in Stephenson, 1935 창사 亞族

Family 13. Haliplanellidae Hand, 1955 줄말미잘 科

Genus 15. *Haliplanella* Hand, 1955 줄말미잘 屬

29. *Haliplanella lucia* (Verrill, 1898) 담황줄말미잘

Previous records. Jangseungpo and Haegeumgang (Song, 1992b).

Material examined. Isudo, 25 July 1995, many inds.; Gudo, 6 Feb. 1996, many inds.; Isudo, 7 Feb. 1996, many inds.; Oepo, 7 July 1996, many inds.; Heungnam, 30 Jan. 1997, many inds.; Heungnam, 3 July 1997, many inds.; Gujora, 4 July 1997, many inds.

Family 14. Hormathiidae Carlgren, 1925 끈말미잘 科

Genus 16. *Calliactis* Verrill, 1869 집게말미잘 屬

30. *Calliactis japonica* Carlgren, 1928 집게말미잘 (Fig. 2 A, Fig. 3 A-C)

Calliactis japonica Carlgren, 1928, p. 172; 1949, p. 98.

Material examined. Seogwipo, 1 Dec. 1978, 5 inds.; Cheongsando, 25 July 1981, 5 inds.; Samcheonpo, 21 July 1982, 6 ind.; Chujado, 100 m deep, 6-8 Feb. 1986, 6 inds.; Seogwipo, 60-90 m deep, 9 Oct. 1986, 2 inds.; Ssanggeun, 7 m deep, 8 July 1996, 3 inds.; Bijindo, 9 July 1996, 6 inds.; Susan, 29 Jan. 1997, 2 inds.; Chejudo, 25 May 1998, 3 inds.

External features. Hormathiidae with well developed pedal disc (table 1). Column smooth, cylindrical and not distorted. Its wall firm with membranous investiment, tough, not pierce and 3 mm thick. Column stout pillar in expansion, exceeded by base and disc. Substance very firm in contraction because of its stiffer texture. Cinclids 24 in number, arranged in one horizontal row near zone above base. No collar and margin tentaculate. Mesenteries on pedal disc shows 48 pairs.

Table 1. Measurement (mm) in relation to state of specimens on *Calliactis japonica* in Korea.

Parts	Contracted state		Expanded state*	
	height	width	height	width
Column	13 - 65 (40)		58 - 60	35 × 28
Oal disc		5 × 8 - 36 × 28 (17 × 14)		28 × 24
Pedal disc		43 × 43 - 82 × 70 (63 × 56)		57 × 44

(): mean, *: A individual with 45mm high in contracted state.

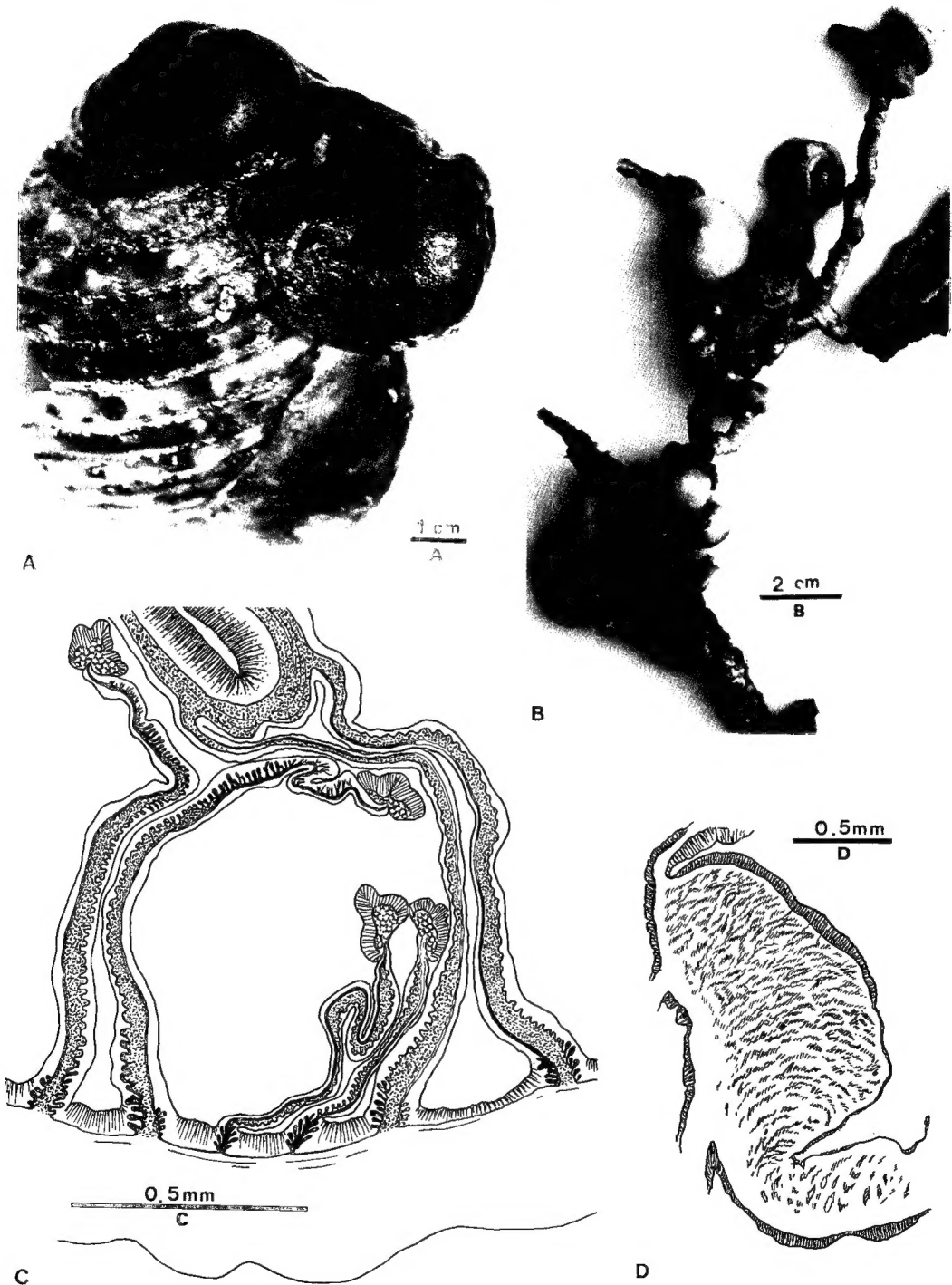


Fig. 2. A, *Calliactis japonica*; B, *Nemanthus nitidus*; C-D, Internal anatomy of *N. nitidus*; C, Directives, 3rd and 4th mesenteries, showing the weakly developed retractors; D, Mesogloal sphincter.

Tentacles simple, short, conical, more numerous than mesenteries, and show hexameric arrangement in 7th circles. Their inner circles almost on a level, 12 mm long, decreasing in size outwards and

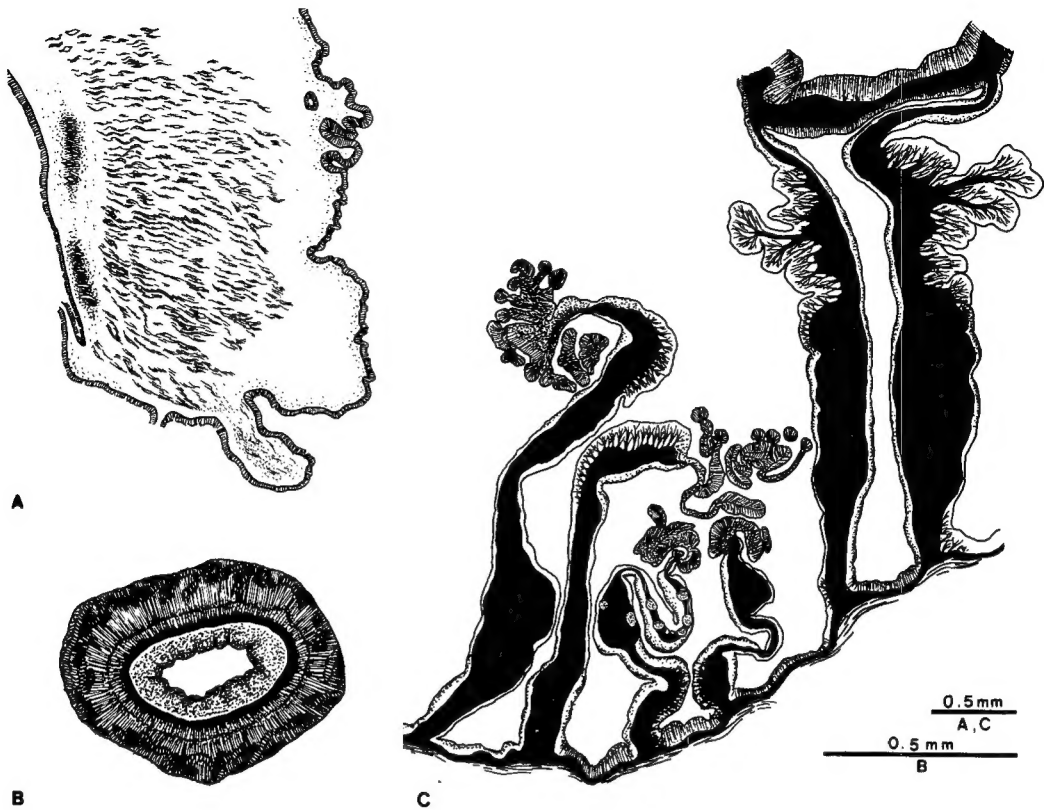


Fig. 3. A-C, Internal anatomy of *Calliactis japonica*; A, Mesogloal sphincter; B, Tentacle, showing the longitudinal ectodermal muscle; C, Directives, 3rd and 4th mesenteries with gonads, showing the diffuse retractors.

outer ones 3 mm long. Elements of pattern on oral disc and tentacles show bilateral arrangement. Acontia sometimes extruded through mouth.

Internal features. Number of perfect mesenteries limited to six pairs including two pairs directives. Two broad siphonoglyphs. Mesenteries 48 pairs, hexameric arrangement in 4th cycles. All three cycles bear fairly weak and diffuse retractors. Their filaments and acontia occupy exocoels and endocoels as dotted patches. Acontia present. Parietobasilar and basilar muscles weak. Mesenteries of 2nd and 3rd cycles bear weak retractors, filaments and gonads. In larger specimens, mesenteries of 4th youngest cycle small, being in evidence, but important as gonad bearers. Longitudinal musculature of tentacles wholly or partly ectodermal. Musculature of oral disc more or less embedded in mesoglea. Sphincter strong and mesogloal.

Cnidom: Basitrichs, Spirocysts.

Distribution and size (μm) of nematocysts:

Tentacles	.....Basitrichs	.....	20 \times 3.0 – 23 \times 3.3 (rare)
	.....Spirocysts	.....	25 \times 3.5 – 32 \times 5.0
Actinopharynx	.....Basitrichs	.....	29 \times 3.5 – 33 \times 4.0
Column	.....Basitrichs	.....	14 \times 3.8 – 20 \times 4.0 (rare), 10 \times 1.8 – 11 \times 2.0 (rare)
Filaments	.....Basitrichs	.....	12 \times 2.5 – 15 \times 3.0 (rare), 21 \times 3.8 – 25 \times 4.0

AcontiaBasitrichs12 × 2.5 – 15 × 3.3 (rare), 35 × 3.5 – 39 × 4.0

Coloration: Column variable, mostly yellowish orange to rose violet with red violet dots. Acontia white. Pedal disc and limbus yellow to yellowish orange. Tentacles translucent white, and oral disc flesh color.

Habitat. This species often commensals with hermit crabs, *Dardanus arrosor*. Three individuals of the anemones commonly adhere to a gastropod shell, *Tonna luteostoma* accompanying a single hermit crab.

Remarks. This species is widely distributed at the southern part of Korea including Geojedo Is.

Distribution. Korea (Korea Strait, South Sea, Cheju Is.), Japan (Sagami, Misaki, Isoto Is.).

Family 15. Sagartiidae (Gosse, 1858) 사가트말미잘 科

Genus 17. *Verrillactis* 손말미잘 屬

31. *Verrillactis paguri* (Verrill, 1869) 집게손말미잘

Previous records. Geojedo (Song, 1992b).

Material examined. Ssanggeun, 8 July 1996, 1 ind.; Susan, 29 Jan. 1997, 2 inds.; Heungnam, 3 July 1997, 6 inds.

Family 16. Nemanthidae Carlgren, 1940 담홍말미잘 科

Genus 18. *Nemanthus* Carlgren, 1940 담홍말미잘 屬

32. *Nemanthus nitidus* (Wassilieff, 1908) 담홍말미잘 (Fig. 2B-D)

Sagartia nirida Wassilieff, 1908, p. 31; Asano, 1911, p. 141.

Nemanthus nitidus Carlgren, 1940, p. 114; 1949, p. 110.

Material examined. Seogwipo, 24 Dec. 1971, 3 inds.; Seogwipo, 27 Dec. 1971, 20 inds.; Hongdo, attached to *Acalycigorgia inermis*, 20 July 1978, 35 inds.; Seogwipo, 60 m deep, 30 Nov. 1978, 11 inds.; Seogwipo, 30 m deep, 3 Dec. 1978, 50 inds.; Hongdo, 27 Dec. 1978, 22 inds.; Chigwido, 30 m deep, 9 July 1985, 35 inds.; Munseom, 30 m deep, 16 Jan. 1986, 48 inds.; Gujora, 30 m deep, July 1996, many inds.; Munseom, attached to *Eupexaura* sp. 40 m deep, 22 Jan. 1998, 58 inds.

External features. Nemanthidae with wide pedal disc (table 2). Column smooth with longitudinal furrows indicating insertions of mesenteries. Margine distinct. Tentacles numerous, more than 190 arranged in 12 + 12 + 24 + 48 + 96. In expanded state, individuals with 7-16 (12) mm in height of column, up to 15-30 (24) mm in total length including tentacles. Inner 1st circle of tentacles 18-21 mm long, and decreasing in size outwards, 2nd 15-16 mm, 3th 8-10 mm, 4th 3-4 mm, 5th 2-3 mm.

Table 2. Measurement (mm) in relation to state of specimens on *Nemanthus nitidus* in Korea.

Parts	Contracted state		Expanded state*	
	height	width	height	width
Column	5 – 22 (11)		7 – 16 (12)	
Oral disc		2 × 2 – 18 × 14 (7 × 6)		5 × 4 – 22 × 16 (12 × 9)
Pedal disc		4 × 3 – 27 × 23 (13 × 10)		11 × 5 – 23 × 18 (20 × 13)

(): mean.

Tentacles fewer than mesenteries at base.

Internal features. Actinopharynx with distinct two broad siphonoglyphs. Mesenteries often asymmetrically arranged, variable in number and more than 110 at larger specimens. Perfect mesenteries sterile, irregularly arranged and 6-12 pairs including two pairs of directives. Number of mesenteries at one side of body more than another side's. Stronger imperfect ones fertile. Longitudinal muscles of mesenteries weak, forming no distinct retractors and parietobasilar muscles very weak. Acontia-like organs "acontoids" present on few mesenteries and containing few nematocysts of same kinds as filament's. Longitudinal muscles of tentacles and radial muscles of oral disc weak, ectodermal. Sphincter strong, mesogloal, alveolar, somewhat reticulate, separated from muscles of endoderm and ectoderm by broad mesogloal lamella.

Cnidom: Basitrichs, Microbasic p-mastigophores, Holotrichs, Spirocysts.

Distribution and size (μm) of nematocysts:

Tentacles	Basitrichs	14 × 3.5 – 30 × 4.5
	Microbasic p-mastigophores	17 × 4.5 – 23 × 5.0
	Spirocysts	17 × 4.0 – 19 × 4.5, 24 × 4.0 – 26 × 5.0 31 × 6.0 – 47 × 8.0
Actinopharynx	Basitrichs	17 × 4.0 – 26 × 4.5
	Microbasic p-mastigophores	19 × 4.0 – 23 × 5.0
	Spirocysts (rare)	19 × 4.0 – 27 × 6.0
Oral disc	Basitrichs	14 × 3.0 – 21 × 4.5
	Microbasic p-mastigophores	19 × 4.0 – 23 × 5.0
	Spirocysts	19 × 4.0 – 40 × 7.0
Column	Basitrichs	16 × 3.0 – 26 × 4.5
	Spirocysts (rare)	23 × 3.0
Filaments	Basitrichs	19 × 3.0 – 21 × 3.5, 79 × 10.0 – 83 × 12.0
	Microbasic p-mastigophores	21 × 4.0 – 34 × 6.0
	Spirocysts	23 × 5.0 – 26 × 7.0

Coloration: Column variable mostly wine red to orange or yellow towards lower part. Pedal disc and limbus yellow to yellowish orange. Tentacles flesh color with orange lines at each lateral parts.

Habitat. Individuals often live together in colonies attached to branches of gorgonians, antipatharians and other substrates. They are so closely packed that edges of their pedal discs touch each other intimately.

Remarks. This species is closely related to *N. nitidus* (see Carlgren, 1940) except for the differentiations of nematocysts, especially the existence of holotrichs at filaments. It's widely distributed at the Cheju Island and the Korea Strait including Geojedo Is.

Distribution. Korea (Korea Strait, Cheju Is.), Japan (Sagami Bay, Bonin Is., Port Lloyd).

Order 7. Scleractinia Bourne, 1900 돌산호 目

Suborder Caryophyllina Vaughan and Wells, 1943 정향돌산호 亞目

Superfamily Caryophylliidae Gray, 1847 정향돌산호 上科

Family 17. Caryophyllidae Gray, 1847 정향돌산호 科

Subfamily Caryophylliinae Gray, 1847 정향돌산호 亞科

Genus 19. *Caryophyllia* Lamarck, 1801 정향돌산호 屬

33. *Caryophyllia japonica* Marenzeller, 1888 정향돌산호

Material examined. Ssanggeun, 8 July 1996, 3 inds.; Daepo, 9 July 1996, 1 ind.

Genus 20. *Heterocyathus* M. Edwards and Haime, 1848 이형컵산호 屬

34. *Heterocyathus aequicostatus* M. Edwards and Haime, 1848 이형컵돌산호

Previous records. Geojedo (Song, 1982; 1991).

Suborder Dendrophyllina Vaughan and Wells, 1943 나무돌산호 亞目

Family 18. Dendrophylliidae Gray, 1847 나무돌산호 科

Genus 21. *Dendrophyllia* de Blainville, 1830 나무돌산호 屬

35. *Dendrophyllia cribrosa* M. Edwards and Haime, 1860 유착나무돌산호

Material examined. Daepo, 9 July 1996, 1 ind.

Suborder Faviina Vaughan and Wells, 1943 벌집돌산호 亞目

Superfamily Faviace Gregory, 1900 벌집돌산호 上科

Family 19. Rhizangiidae d'Orbigny, 1851 근생돌산호 科

Genus 22. *Culicia* Dana, 1848 흑돌산호 屬

36. *Culicia japonica* Yabe and Eguchi, 1936 흑돌산호

Previous records. Chungmu (Song, 1991; 1992b).

Genus 23. *Oulangia* M. Edwards and Haime, 1848 진돌산호 屬

37. *Oulangia stokesiana miltoni* Yabe and Eguchi, 1932 밀론진돌산호

Material examined. Daepo, 9 July 1996, 1 ind.

Subclass 3. Ceriantipatharia van Beneden, 1898 꽃말미잘 亞綱

Order 8. Antipatharia M. Edwards and Haime, 1857 각산호 目

Family 20. Antipathidae Verrill, 1865 해송 科

Subfamily Antipathinae Brook, 1889 해송 亞科

Section Ramosae Brook, 1889 가지해송 節

Genus 24. *Antipathes* Pallas, 1766 해송 屬

38. *Antipathes lata* Silberfeld, 1909 간가지해송

Previous records. Hongdo (Song, 1987; 1992b)

Material examined. Daepo, 9 July 1996, 1 ind.

Order 9. Ceriantharia Perrier, 1893 꽃말미잘 目

Family 21. Cerianthidae M. Edwards and Haime, 1851 꽃말미잘 科

Genus 25. *Cerianthus* St. Delle Chiaje, 1832 꽃말미잘 屬

39. *Cerianthus filiformis* Carlgren, 1924 싹꽃말미잘

Previous records. Ssanggeun, Susan, Heungnam, Gujora, Sagog (Song, 1998).

DISCUSSION

Our results on the faunal study of anthozoans from adjacent waters of Geojedo Island revealed that 39 species (32%) among 121 species known from Korean waters were distributed as shown in table 3. Of which, 19 species were new to the fauna of Geojedo Island in the present study, and two of them, *Calliactis japonica* and *Nemanthus nitidus* were newly recorded to Korean waters including the Korea Strait and the Cheju Island area.

The octocorallians of Geojedo Island were partly detected by the previous studies and were turned out to be 23 species, five families in five orders in this study. Among them, 10 species in gorgonians and four species in alcyonarians were collected from Bijindo, Daepo and Maemuldo by fishing nets (table 3).

Song (1992) had ever recorded nine actiniarian species from the Korea Strait, of which six species, *Anthopleura japonica*, *A. kurogane*, *A. midori*, *A. pacifica*, *Varrillactis paguri* and *Haliplanella lucia* were mostly occurred in the intertidal zone of Geojedo Island. *C. japonica* and *N. nitidus* were sampled from 7-100 m deep and 30-60 m deep respectively by the SCUBA diving and fishing nets.

According to Song (1992), the nine scleractinians and two antipatharians were known from Korea Strait, of which five scleractinians and one antipatharian were occurred at Chungmu, Daepo and Maemuldo of Geojedo Island by fishing nets. *Cerianthus filiformis* with phoronid associate, *Phoronis australis*, was reported in fine mud, coarse mud and muddy sand bottoms from the sublittoral zone along the coast of Geojedo Island (Song 1998).

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거제도 근해의 산호충류상

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요 약

1995년 2월부터 1998년 1월까지 거제도 해안의 13지역 (구도, 쌍근, 대포, 여차, 해금강, 수산, 구조라, 윤돌도, 장승포, 외포리, 이수도, 홍남, 사곡)과 인접해역의 4지역 (충무, 비진도, 매물도, 홍도)로부터 산호충류를 채집하여 동정하였다. 그 결과, 산호충강 내에 3아강 7목 21과 25속 39종이 분포하는 것으로 조사되었으며, 그중 집게말미잘 (*Calliactis japonica*)과 담홍말미잘 (*Nemanthus nitidus*)이 한국 미기록종으로 밝혀졌다.